



Multiannual Programme of the Joint Research Centre 1980-1983

1981

Annual Status Report

Training and education

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of the Joint Research Centre
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EDUCATION AND TRAINING

1981

Research Staff:	9
Budget:	969.000 ECU
Projects:	12 Courses or Seminars, as listed in section 2

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 Commission of the European Communities
 Joint Research Centre
 Ispra Establishment
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1. INTRODUCTION

The Education and Training Programme has been set up in recognition of the growing importance of continuing education in modern technological society. It is designed to improve the dissemination of scientific and technical knowledge, in subjects related to the research activities of the JRC, to the potential external users: industries, public bodies, research and educational organizations, etc. . .

Owing to the number and the quality of specialists of the various fields covered by the courses who are brought to Ispra as lecturers or participants, this programme plays an important role in the integration of the research teams of the JRC with the European scientific world, and in the development of contacts and ties between European scientists active in a given field.

The Education and Training programme consists both of Courses giving the fundamentals of new or specialized disciplines, and Seminars at research level presenting the state of very rapidly evolving subjects. Though oriented towards applied science and technology, generally their scientific content is at a high level and addressed to persons having a university education, and often some experience in the field.

The lecturing staff consists of both invited experts and JRC staff members.

The courses, intended for external participation, are advertised accordingly in European Countries. A registration fee is requested from participants to cover part of the organization costs.

2. RESULTS

The following Courses or Seminars were organized during 1981:

NUCLEAR SCIENCE AND TECHNOLOGY

«Operator Behaviour in Abnormal Conditions» : Workshop, 3 days

«Mathematical and Statistical Methods in Nuclear Safeguards» : Course, 5 days

INFORMATION AND SYSTEM SCIENCE

«The Craft of Systems Analysis» : Course, 5 days

MECHANICAL SCIENCE

«Advanced Seminar on Fracture Mechanics» : Seminar, 5 days

ENERGY SYSTEMS AND TECHNOLOGY

«Thermal Energy Storage» : Course, 5 days

«Performances of Solar Energy Converters» : Course

Part A : Thermal Collectors : 3 days

Part B : Photovoltaic Cells : 3 days

«Introduction to Solar Energy Resources» : Course, 3 days

«Remote Sensing for Land Use Inventories» : Course, 15 days

CHEMICAL SCIENCE AND METHODS

«Analytical Techniques for Heavy Metals in Blood» : Course, 5 days

HEALTH PHYSICS

«Fondamenti di Radioprotezione» : Course, 10 days

«Radioprotezione Fisica nelle Applicazioni Medico-Sanitarie»: Course, 5 days

Only three of these courses were repeats of courses held in previous years, while the remaining nine were completely new and therefore required considerable amount of design work and organization.

Among the latter, the Course «Remote Sensing for Land Use Inventories» constituted a landmark in the history of the Ispra Courses because of the strong emphasis placed on the practical part and the consequent extent of the preparatory work and the JRC manpower involved. Thanks to grants awarded by the Council of Europe, if was possible, for the first time in an Ispra Course, to attract a large proportion of post-graduate students or young university staff.

The two courses on «Performance of Solar Energy Converters» were an attempt to further specialize our courses related to solar energy, as suggested by the experience of previous years. These courses are the direct result of the experience gained with the European Solar Test Installation (E.S.T.I.) operating at Ispra.

The «Advanced Seminar on Fracture Mechanics» was third of a series set up in cooperation with the «European Group on Fracture». This year, it was devoted to «Subcritical Crack Growth due to Fatigue, Stress Corrosion and Creep». Research in this field is still very active and of interest for many industrial applications. Many registrations were therefore received.

The course «Mathematical and Statistical methods in Nuclear Safeguards» marked the revival of the Ispra Courses in the field of nuclear safeguards. Unlike the courses held in the past which were practically oriented, this one was characterized by a high theoretical content and the themes tackled were an incentive for a very active scientific discussion.

The calendar of the courses was not very full in 1981: twelve courses were actually held while seventeen had been planned.

Two courses were postponed to 1982, as more time was necessary for their preparation. Two others (both repeats of courses held in previous years) were cancelled due to a lack of registrations. Lastly, the course «Managing National Energy Systems» designed for participants from developing countries, had to be cancelled at the last moment, in spite of successful preparation, because the invitation process - under the control of another DG of the Commission and involving official nomination by the government of the invited countries - failed to provide a sufficient number of applicants. As a result, the total attendance at the courses decreased to 1967 participants × days, the lowest figure since 1975.

The rather limited participation in some courses has also contributed to this figure. The quality of the courses is not in question: again this year, they were judged «good» or «excellent» by 87% of those participants who answered the evaluation questions, fair by 11% and bad by 1%. It is felt rather that the general economic situation in the EC countries, causing many firms and public bodies to reduce their personnel expenses, and the permanent increase in the number of courses in certain areas (informatics, solar energy) makes it more difficult now than it was some years ago to attract people for training outside their own country. In these areas, especially the Ispra Courses should definitively be oriented towards very specialized and advanced topics, for which fewer national courses are organized and the treatment in an international context is more attractive.

Moreover, an effort will be made to open the Ispra Courses to young postgraduate students, as was done successfully this year with the Remote Sensing course.

The work in publishing the Ispra Courses has progressed: five contracts for publications of 1981 courses have been allocated, and the number of Ispra Courses published or under publication is now 21. The press reviews and sales show that these books are welcomed by the scientific community.

3. CONCLUSIONS

Even if the year 1981 was not among the best in the history of Ispra Courses from the point of view of quantity, some achievements are encouraging, the most important being the starting up of a significant activity in practical remote sensing education at Ispra.

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